Sub C1

a) binding of two or more proximity probes to a respective binding site on said analyte(s), wherein the proximity probes are comprised of a binding moiety and thereto coupled nucleic acids;

b) allowing the binding moiety to bind to the analyte(s) and allowing the nucleic acids to interact with each other if they are in close proximity to each other; and

c) detection of the degree of interaction between the nucleic acids with the proviso that the binding moiety and the analyte(s) not all comprise nucleic acid.

B1

2. (Amended) A method according to claim 1, further comprising amplification of the interacted nucleic acids and quantification of the amplification product.

SUB E1

3. (Amended) A method according to claim 1, wherein the binding moiety of the proximity probes is selected from the group consisting of proteins, peptides, carbohydrates, nucleic acids and combinations thereof.

13. (Twice Amended) A method according to claim 1 for screening for ligand-receptor interaction antagonists in a high throughput screening procedure, wherein a drug candidate molecule is screened for ability to disrupt proximity between the proximity probes.

B2

SUB E1

14. (Twice Amended) A method according to claim 1, wherein the first proximity probe is comprised of purified analyte coupled to an oligonucleotide and the second proximity probe is comprised of a binding moiety specific for the analyte with a coupled oligonucleotide capable of interacting with the first proximity probe .

15. (Twice Amended) A method according to claim 13 wherein the drug candidate molecule is a biomolecule derived from a library of potential ligands to one of the binding sites involved in the formation of the proximity between the proximity probes .

17. (Twice Amended) A method according to claim 1, comprising using said method for the detection of infectious agents.

18. (Twice Amended) A method according to claim 17, wherein the infectious agents are detected in food for humans and animals.

Please cancel non-elected claims 8-12 without prejudice to the present invention and without prejudice to applicants' rights, including those under Section 121, 120 and 119, to pursue the non-elected invention in a divisional application.

Please add new claims 19-24.

19. (New) The method according to claim 1, further comprising quantifying the interaction of the analytes in solution.

20. (New) A method according to claim 19, further comprising amplification of the interacted nucleic acids and quantification of the amplification product.

21. (New) A method according to claim 14, wherein the presence of an analyte in a sample is detected as a decrease in signal.

B4 SUB E1

22. (New) A method according to claim 1, wherein said two or more proximity probes comprise a first said proximity probe with a 3′ free nucleic acid (A), a second said proximity probe with a 5′ free nucleic acid (B), and a third said proximity probe with both 3′ and 5′ free nucleic acids (C), and wherein the 3′ end of A interacts with the 5′ end of C and the 3′ end of C interacts with the 5′ end of B.

23. (New) A method according to claim 3, wherein the proteins are selected from the group consisting of monoclonal antibodies, polyclonal antibodies, lectins, soluble cell surface receptors, combinatorially derived proteins from